**IT Applications Unit 3, AOS 1, Online Communities**

Complete the following, from Chapter 2, Problem-solving Methodology, pgs, 60-80

**Designing a website solution, p 66**

**Problem-solving Methodology: 4 Stages**

**Analyse**

**Design**

**Development**

**Evaluate**

**Case Study:**

**Indigenous Language Trust, (ILT)**

Using the case study, ILT complete the following:

**Designing a website solution, p 66**

1. List the techniques that web developers can use to ensure their website is efficient?

To ensure that their website is efficient web developers can:

* Reduce the time spent making pages by creating templates and using CSS sheets
* Reduce the time spent waiting for a page to load
* Ensure that all images are in a smaller format or use thumbnails so that the page will load with minimal effort

1. List the techniques that web developers can use to ensure their website is effective?

To ensure that their website is effective web designers can:

* Check to see the website loads correctly in different web browsers
* Make the website easier for the user to navigate, this can be don’t through the use of things such as the use of links that change colour after they have been clicked on
* Keep the layout consistent throughout the whole website, this will make it easier for visitors and makes it clear and consistent
* Also the use of clear and consistent layouts will make it easier for the visually impaired, people with learning disabilities and those who have trouble using a disorganised navigation scheme to use
* Clearly displaying information on the website and keeping background images to a minimum will help people with colour blindness or impaired vision.

**Identifying how a solution will function**

1. Taking into account the technical constraints a range of design tools can be used to show the functionality of the website. Elaborate on each of the following functional design tools:
2. IPO Charts

An IPO, input— process—output, chart can be used to show how data is processed into meaningful information. It identifies what data is required for the solution (input), what information the solution needs to produce (output) and what processing occurs to turn the data into the information.

1. Flowcharts

A flowchart uses symbols in a linear sequence to document each procedural step required. It can be used to indicate how a member of an online community may gain access to the information or how a solution is produced.

1. Layout diagrams

Layout diagrams or style sheets are used to show how a webpage will function. They can answer questions such as, what happens if we click this link? Or what happens if we type in an account name and password?

1. Website map
   1. What does information architecture refer to?

Information architecture refers to the structure of the website, its navigation pathways and often communicated through a map. If a user cannot navigate the website they will often leave it quickly.

**Navigation Design**

1. What considerations need to be taken into planning the navigation design?

When planning the navigation design the placement of the navigation bar, and how this will affect the accessibility.

1. What’s meant by making your website accessible?

Making your website accessible means it can be used in different internet browsers and with different plug-ins.

1. What is a style guide?

A style guide is used to tell you exactly how to format communication for that organisation. Often layout guides will show you how to layout the page and use the company’s logo so that all correspondence looks as if it comes from that organisation.

1. List the conventions of file naming.

The conventions for file naming should be kept short and meaningful, lower case letters should be used as they are easier to understand, the default page should be called index.htm or index.html, the file name should be limited to fewer than 16 characters, and contain only numbers, letters or underscores.

**Identifying how a solution will appear using design tools, p 70**

**Elaborate on the following:**

1. Mock-up diagram

A mock-up diagram is a sketch of what the actual website that the designer will make.

1. Layout diagrams

Layout diagrams are a visual representation of how the final product should look. They are usually drawn by hand and contain information such as where particular sections of text will be located.

1. Storyboard designs

Storyboard designs are design tools that show the features of each individual page. They show general screen design and the placement of graphics and describe actions and links to other pages.

**Formats and conventions,** p 73

Elaborate on the following formats and conventions

* Screen size

It is important to remember that some website users will have smaller screens; the bottom of the index page should contain the recommended screen size for best viewing. There should be no more than 60 characters in a line to ensure that the text can be displayed on a variety of screens.

* Index or home page

The index or home page should contain information such as a contact email address, the date the website was last modified and the author or company’s contact details.

* Scrolling

The user should not have to scroll any page more than two average screen lengths. If the page contains more information it should be divided up into several pages.

* Text

The text alignment (left, right or fully aligned) should be consistent throughout the website. There should not be long sections of capital letters, as it can make all the word difficult to read.

* Navigation

The website and all its pages should have clear and consistent navigation buttons.

* Font selection

The website should have a consistent font throughout (it can vary between heading and body but these have to remain consistent). Also it is recommended that a size between 9 and 12 points is used.

* Images and file size

Images and graphics can be used to enhance a text-based website; the images should be places within the dimensions of the screen and should not be overly large in size as they will take large amounts of time to load.

* Style guides

A style guide should provide information to a website developer; this information includes where to use different types of fonts (bold or italic) and information on the colours, patterns and backgrounds to be used on a website. Formats and conventions should also be mentioned in a style guide.

1. With the ILT case study what formats and conventions have been chosen?

With regard to the ILT the following conventions and formats are used:

* Colour scheme: the main text is black, the headings are red and the sub headings are yellow.
* Text alignment: all text on the ILT’s website will consistency be left aligned
* Navigation bar: the navigation bar will consistently appear at the left of every page
* File naming: the ILT will name its folders public and private, and project files will be named after indigenous areas.

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